



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,463	07/22/2003	Mark Pike	14031.1US01	9154

23552 7590 03/14/2007  
MERCHANT & GOULD PC  
P.O. BOX 2903  
MINNEAPOLIS, MN 55402-0903

EXAMINER
----------

CROUSE, BRETT ALAN

ART UNIT	PAPER NUMBER
----------	--------------

1774

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/14/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/625,463

Applicant(s)

PIKE, MARK

Examiner

Brett A. Crouse

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-33, 35-44 and 54-62 is/are pending in the application.
- 4a) Of the above claim(s) 60-62 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 43 and 44 is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-33, 35-42, and 54-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Miscellaneous***

The rejections of record as set forth in the previous office action dated 26 January 2006 are withdrawn.

### ***Election/Restrictions***

Newly submitted claims 60-62 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 60-62 are drawn to methods of making a composite structural material. The application has previously been subject to a restriction requirement. Method claims to making a composite are drawn to a non-elected invention.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 60-62 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1774

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-11, 13-33, 35-42, and 54-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over (Adams, US 4,424,250) hereinafter known as Adams as evidenced by (Kotlair et al., US 5,626,939) hereinafter known as Kotlair, ("Polypropylene Specifications", [http://www.boedeker.com/polyp\\_p.htm](http://www.boedeker.com/polyp_p.htm), Boedeker Plastics) hereinafter known as Boedeker, ("Polyamide – Nylon 6 – Material Information", [http://www.goodfellow.com/csp/active/STATIC/E/Polyamide\\_-\\_Nylon\\_6.HTML](http://www.goodfellow.com/csp/active/STATIC/E/Polyamide_-_Nylon_6.HTML), Goodfellow) hereinafter known as Goodfellow, and ("Nylon 66 Properties", [http://www.maropolymeronline.com/Properties/nylon\\_66\\_properties.asp](http://www.maropolymeronline.com/Properties/nylon_66_properties.asp), Roger Corneliussen) hereinafter known as Corneliussen.

Adams teaches:

Column 2, lines 21-65, with reference to figures 1 and 2, teach a combination of surface and base fibers including polypropylene, nylon 6, and nylon 6,6 and like polymeric resins. Integration of the face and base is achieved by thermoforming.

Column 3, lines 9-18, with reference to figure 2, teach thermoforming by softening component fiber 16 of the base and fusing the component fiber to a second component fiber 18. This is held as equivalent to forming a matrix.

Art Unit: 1774

Column 4, lines 23-24, teach the use of ultrasonic welding to the structure. It is held that the use of welding will cause exposed fibers of each component to melt or partially melt in the area local to the welding.

With respect to the source of material for the instant invention it is held that materials obtained from recycled carpet are indistinguishable from the same materials obtained from other sources.

It would have been obvious to one of ordinary skill in the art to achieve the mechanical properties of the instant invention using the materials taught by Adams as evidenced by the material properties of the components as shown in the evidential references.

Kotlair:

Table 1, typical components of carpet.

Table 2, column 9, Nylon and polypropylene tensile strength and flexural modulus.

Boedeker – Polypropylene tensile strength, flexural modulus, and compressive strength.

Goodfellow – Nylon 6 tensile strength.

Corneliussen – Nylon 66 tensile strength, flexural strength, and compressive strength.

Further, with respect to the conditioned data, this is held as evidence that the water content is in equilibrium.

It would have been obvious to achieve the fiber sizes of the instant invention from the material of Adams. Adams is directed to the manufacture of a carpet panel and the instant invention uses carpet as a material source. Fibers meeting the limitations of the instant invention would be an obvious choice for use in carpet.


Art Unit: 1774

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brett A. Crouse whose telephone number is 571-272-6494. The examiner can normally be reached on Monday - Friday 6:00AM - 2:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BAC

  
RENA DYE  
SUPERVISORY PATENT EXAMINER  
AU 1774